Administrative Requirement

A double patenting administrative requirement is not being required by Examiner in the instant application since Examiner has independently conducted a double patenting analysis of the claims in the instant application.

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 5/5/03, 3/14/03, 6/18/02, 3/19/02, 5/11/01, 2/5/99, 4/7/97, 4/17/96, 2/6/96, 12/22/95, and 12/11/95 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

It is noted that for each foreign document and NPL document, listed on the respective PTO-1449 forms filed in the instant application, with no date information a "no date" annotation has been assigned by the examiner to each as the date information was not readily obtainable.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Carl L. Benson (Reg. No. 38,378) on 7/12/10.

The application has been amended as follows:

In the claims:

1. (Cancelled)

2. (Currently amended) A method of controlling the communication of signals at a receiver station, said receiver station comprising (i) a valve for receiving and controlling the communication of signals and (ii) at least one processor that processes said signals, said method comprising the steps of:

receiving one of a broadcast transmission and a cablecast transmission that includes an information transmission that includes embedded signals;

demodulating said one of ~~said~~ a broadcast transmission and ~~said~~ a cablecast transmission to detect said information transmission therein;

detecting said embedded signals in said information transmission;

communicating said embedded signals to said valve;

detecting, at said valve, valve control signals that are embedded in said embedded signals;

controlling said valve, in response to said valve control signals, so that said valve performs at least one of the functions of ceasing to communicate and commencing to communicate said embedded signals to said at least one processor; and

communicating said valve control signals from said valve to said at least one processor.

3 (Cancelled)

4. (Currently amended) A method of communicating at least one valve control signal to a plurality of receiver stations, each receiver station of said plurality of receiver stations having (i) a valve for receiving and controlling the communication of information signals and (ii) at least one processor that processes said information signals, said at

least one valve control signal controlling said valve so that said valve performs at least one of the functions of ceasing to communicate said information signals and commencing to communicate said information signals to said at least one processor, said method comprising the steps of:

~~(1)~~ receiving an information transmission that includes said at least one valve control signal;

~~(2)~~ receiving a second control signal which operates at a transmitter station to communicate said at least one valve control signal to a transmitter; and

~~(3)~~ transmitting said information transmission and said at least one valve control signal in one of a broadcast transmission and a cablecast transmission to ~~cause~~ said plurality of receiver stations where said at least one valve control signal is communicated from said valve to said at least one processor, said at least one valve control signal causes said valve to perform at least one of the functions of ceasing to communicate and commencing to communicate said information signals to said at least one processor.

5. (Currently amended) A method of communicating at least one valve control signal to a plurality of receiver stations, each receiver station having (i) a valve for receiving and controlling the communication of information signals and (ii) at least one processor that processes said information signals, said at least one valve control signal controlling said valve so that said valve performs at least one of the functions of ceasing to communicate said signals and commencing to communicate said information signals to said at least one processor, said method comprising the steps of:

~~(1)~~ receiving at least one information transmission to be transmitted;

~~(2)~~ delivering said at least one information transmission to a transmitter;

~~(3)~~ receiving said at least one valve control signal;

~~(4)~~ storing said at least one valve control signal;

~~(5)~~ communicating said at least one valve control signal to said transmitter at a specific time; and

~~(6)~~ transmitting said at least one information transmission and said at least one valve control signal in one of a broadcast transmission and a cablecast transmission to cause said valve to perform at least one of the functions of ceasing to communicate and commencing to communicate said information signals and said valve control signal to said at least one processor.

6. (Cancelled) ~~The method of claim 2, further comprising the step of communicating said at least one valve control signal from said valve to said at least one processor~~.

7. (Previously presented) The method of claim 4, further comprising the step of transmitting said information signals.

8. (Previously presented) The method of claim 5, further comprising the step of transmitting said information signals.

9–77. (Cancelled)

78. (Currently amended) A method of controlling a television display at a receiver station in a network including a transmitter station, said receiver station having a television monitor for displaying television programming and at least one processor for generating at least one of a video and audio signal in response to data detected in a television signal, said at least one processor being capable of responding to a processor interrupt signal, said method comprising the steps of:

receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and said first control signal to a transmitter;

transmitting a television signal with an information transmission comprising said data and said first control signal embedded thereon;

receiving ~~a~~ said television signal at said receiver station;

demodulating said television signal at said receiver station to detect ~~an~~ said information transmission ~~thereon, said information transmission comprising embedded data~~;

detecting said ~~embedded~~ data on said information transmission;

generating a processor interrupt signal in response to said data;

communicating said processor interrupt signal to said at least one processor in response to said first control signal; and

causing said at least one processor, in response to said processor interrupt signal, to perform at least one of: (a) generating at least one of a video and audio signal at a specific time, and (b) outputting said at least one of a video and audio signal at a specific time.

79. (Currently amended) A method of controlling a television display at a receiver station in a network including a transmitter station, said receiver station having a television monitor for displaying television programming, and at least one processor for generating information content of television programming and outputting said information content to said television monitor, said at least one processor being capable of altering its manner of generating and outputting said information content in response to a processor interrupt signal, said method comprising the steps of:

receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and said first control signal to a transmitter;

transmitting one of a broadcast and cablecast transmission comprising an information transmission, said data and said first control signal embedded in said information transmission;

receiving said one of a broadcast and cablecast transmission at said receiver station;

demodulating said one of a broadcast and cablecast transmission to detect ~~an~~ said information transmission ~~thereon, said information transmission comprising embedded data~~;

detecting said ~~embedded~~ data on said information transmission;

generating ~~a~~ said processor interrupt signal based on said data; and

communicating said processor interrupt signal to said at least one processor in response to said first control signal;

interrupting said at least one processor in response to said processor interrupt signal, thereby causing said at least one processor to alter its manner of performing at least one of: (a) generating said information content, and (b) outputting said information content.

80. (Currently amended) A method of controlling a video display at a receiver station in a network including a transmitter station, said receiver station having a video monitor for displaying video and at least one processor for generating a video signal in response to data detected in one of a broadcast and cablecast transmission, said at least one processor being capable of responding to a processor interrupt signal, said method comprising the steps of:

receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and said first control signal to a transmitter;

transmitting one of a broadcast and a cablecast transmission comprising an information transmission, said data and said first control signal embedded in said information transmission;

receiving said one of a broadcast and cablecast transmission at said receiver station;

demodulating said one of a broadcast and cablecast transmission at said receiver station to detect ~~an~~ said information transmission ~~thereon, said information transmission comprising embedded data~~;

detecting said embedded data on said information transmission;

generating a processor interrupt signal in response to said data;

communicating said processor interrupt signal to said at least one processor in response to said first control signal; and

causing said at least one processor, in response to said processor interrupt signal, to perform at least one of: (a) generate a video signal at a specific time, and (b) output said video signal at a specific time.

81. (Currently amended) A method of controlling a television display at at least one of a plurality of receiver stations each of which has a television monitor for displaying television programming and at least one processor for generating video and audio signals in response to data detected in one of a broadcast and cablecast transmission, and said at least one processor being capable of responding to a processor interrupt signal, said method comprising the steps of:

~~(a)~~ receiving an information transmission to be transmitted;

~~(b)~~ receiving said data which: (i) enable said at least one of a plurality of receiver stations to generate a processor interrupt signal, and (ii) cause said at least one processor to generate at least one of a video and audio signal;

~~(c)~~ receiving a first control signal which operates at a transmitter station to communicate said data and a second control signal to a transmitter; and

~~(d)~~ transmitting said information transmission, said second control signal and said data in said one of a broadcast and cablecast transmission to said at least one of a plurality of receiver stations, said second control signal operative at said at least one of a plurality of receiver stations to communicate said processor interrupt signal to said at least one processor .

82. (Currently amended) A method of controlling a television display at at least one of a plurality of receiver stations each of which has a television monitor for displaying television programming and at least one processor for generating video and audio signals in response to data detected in one of a broadcast and cablecast transmission, said at least one processor being capable of responding to a processor interrupt signal, said method comprising the steps of:

~~(a)~~ receiving an information transmission to be transmitted and delivering said information transmission to a transmitter;

~~(b)~~ receiving and storing said data which: (i) enable said at least one of a plurality of receiver stations to generate a processor interrupt signal, and (ii) cause said at least one processor to generate at least one of a video and audio signal; and

~~(c)~~ ~~causing~~ receiving a first control signal which operates to communicate said data ~~to be communicated~~ and a second control signal to said transmitter at a specific time~~, thereby to transmit~~;

transmitting said information transmission, said second control signal and said data in said one of a broadcast and cablecast transmission to said at least one of a plurality of

receiver stations, said second control signal operative at said at least one of a plurality of receiver stations to communicate said processor interrupt signal to said at least one processor.

83. (Currently amended) A method of controlling a receiver station in a mass medium programming presentation system including a transmitter station, said receiver station having a first processor and a second processor, wherein said first processor and said second processor are capable of receiving input from a plurality of sources, said method comprising the steps of:

receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and first control signal to a transmitter;

transmitting a transmission signal comprising an information transmission, said first control signal and said data embedded in said information transmission;

receiving ~~a~~ said transmission signal at said receiver station;

demodulating said transmission signal to detect ~~an~~ said information transmission ~~thereon, said information transmission comprising embedded data~~;

detecting said embedded data on said information transmission;

passing said embedded data to said first processor;

selecting a specific input source in response to said ~~embedded data~~ first control signal;

generating a processor interrupt signal in response to said data; and

said ~~embedded data~~ processor interrupt signal causing at least one of said first processor and said second processor to commence waiting to receive said input from said specific input source.

84. (Previously presented) The method of claim 83, wherein the transmission signal is a broadcast signal.

85. (Previously presented) The method of claim 83, wherein the transmission signal is a cablecast signal.

86. (Previously presented) The method of claim 83, wherein the transmission signal is a multi-channel signal.

87. (Previously presented) The method of claim 83, wherein said transmission signal includes mass medium programming, said method further comprising the step of outputting said mass medium programming as part of a mass medium programming presentation based on an input from said specific input source.

88. (Cancelled)

89. (Currently amended) The method of claim 83~~, wherein said transmission signal includes data, said method~~ further comprising the step of outputting ~~said~~ a portion of said data as part of a mass medium programming presentation based on an input from said specific input source.

90. (Previously presented) The method of claim 83, wherein said receiver station outputs an image, said method further comprising the step of ceasing to output at least some of said image in response to input from said specific input source.

91. (Previously presented) The method of claim 90, further comprising the step of clearing at least some of a memory including said image.

92. (Previously presented) The method of claim 90, further comprising the step of outputting a subsequent image based on said input from said specific input source.

93. (Previously presented) The method of claim 83, further comprising the step of communicating some of a message stream to at least one of a switch and the other of said first processor and said second processor based on input from said specific input source.

94. (Previously presented) The method of claim 83, wherein at least one of meter information and monitor information is processed before said at least one of said first processor and said second processor is caused to commence waiting to receive said input.

95. (Previously presented) The method of claim 83, wherein said input includes at least one of an interrupt signal and an end of file signal.

96. (Previously presented) The method of claim 83, further comprising the step of determining a structure or composition of said input by processing at least a first bit of said input.

97. (Previously presented) The method of claim 83, further comprising the step of placing data at a register memory which designate said specific input source.

98. (Previously presented) The method of claim 83, further comprising the step of selecting said specific input source based on the contents of a register memory.

99. (Previously presented) The method of claim 83, wherein said input enables at least some of a mass medium programming presentation.

100. The method of claim 83, further comprising the step of interrupting the other of said first processor and said second processor based on said input.

101. (Previously presented) The method of claim 83, further comprising the step of programming said receiver station to respond to said input.

102. (Previously presented) The method of claim 83, further comprising the step of overwriting RAM information whose overlay time or processing time has ended based on said input.

103. (Previously presented) The method of claim 83, further comprising the step of programming said receiver station with operating system instructions based on said input.

104. (Previously presented) The method of claim 103, further comprising the step of waiting for input under control of said operating system instructions.

105. (Currently amended) A method of communicating digital data, in a mass medium programming presentation system, to a plurality of receiver stations each of

which includes a processor capable of receiving input from a plurality of sources, comprising the steps of:

receiving a transmission signal to be transmitted with a first control signal;

receiving said digital data which operates, at at least one of said plurality of receiver stations, to ~~cause~~ generate a processor interrupt signal which causes said processor to commence waiting to receive said input from an identified input source;

receiving a second control signal which operates at a transmitter station to communicate said digital data to a transmitter; and

transmitting said transmission signal comprising said digital data and said first control signal, said first control signal to effect said processor at said at least one of said plurality of receiver stations to select an identified input source from said plurality of sources and to effect said at least one of said plurality of receiver stations to process said digital data to cause said processor to commence waiting to receive said input from said identified input source.

106. (Currently amended) The method of claim 105, wherein ~~the receiver station~~ said at least one of said plurality of receiver stations is an intermediate transmitter station.

107. (Previously presented) The method of claim 105, wherein said at least one of said plurality of receiver stations outputs at least some of a mass medium programming presentation based on said input, said method further comprising the step of transmitting at least one of said input and said at least some of said mass medium programming presentation.

108-109. (Cancelled)

110. (Previously presented) The method of claim 105, wherein said at least one of said plurality of receiver stations clears said data from a memory in response to an instruction included in said input.

111. (Previously presented) The method of claim 110, further comprising the step of transmitting said instruction.

112. (Cancelled)

113. (Cancelled) ~~The method of claim 112, further comprising the step of transmitting said at least one of said television signal and said multichannel signal~~.

114. A method of communicating digital data, in a mass medium programming presentation system, to a plurality of receiver stations each of which includes a processor capable of receiving input from a plurality of sources, comprising the steps of:

receiving a transmission signal to be transmitted with a first control signal and delivering said transmission signal to a transmitter;

receiving and storing said digital data which at at least one of said plurality of said receiver stations operates to ~~cause~~ generate a processor interrupt signal which causes said processor to commence waiting to receive said input from an identified input source; ~~and~~

~~causing~~ receiving a second control signal which operates to communicate said digital data ~~to be communicated~~ to said transmitter at a specific time~~, thereby to transmit~~; and

transmitting, from a transmitter station, said transmission signal comprising said digital data and said first control signal to said at least one of said plurality of receiver stations, said first control signal to effect said processor at said at least one of said plurality of receiver stations to select an identified input source from said plurality of sources and to

effect said at least one of said plurality of receiver stations to process said digital data to cause said processor to commence waiting to receive said input from said identified input source.

115. (Previously presented) The method of claim 114, wherein the transmitter station is an intermediate transmitter station.

116 – 156. (Cancelled)

157. (Currently amended) A method of processing signals at a receiver station in a network including a transmitter station, said receiver station comprising a plurality of programmable processors each for at least one of generating and controlling the passing of some information associated with at least one of a video display and an audio output, said method comprising the steps of:

receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and said first control signal to a transmitter;

transmitting one of a broadcast and a cablecast transmission comprising an information transmission, said data and said first control signal embedded in said information transmission;

receiving said one of a broadcast and a cablecast transmission at said receiver station;

demodulating said one of a broadcast and a cablecast transmission to detect an information transmission ~~thereon, said information transmission comprising data~~;

detecting said data on said information transmission;

communicating said detected data to said plurality of programmable processors;

selecting at least one of said plurality of programmable processors in response to said first control signal;

communicating an interrupt signal to said selected at least one of said plurality of programmable processors on the basis of said selecting; and

causing said selected at least one of said plurality of programmable processors to at least one of generate and control the passing of at least some portion of at least one of a video and an audio signal at a specific time.

158. (Previously presented) The method of claim 157, further comprising the step of programming said receiver station to select at least one of said plurality of programmable processors to interrupt and communicate said interrupt signal.

159. (Previously presented) The method of claim 157, wherein said step of causing said selected at least one of said plurality of programmable processors to at least one of generate and control the passing of at least some portion of at least one of a video and an audio signal is in consequence of said communicated programmable processor interrupt signal.

160. (Currently amended) The method of claim 157, further comprising the steps of: communicating ~~a~~ an additional control signal to said selected at least one of said plurality of programmable processors; and

causing said selected at least one of said plurality of programmable processors to at least one of generate and control the passing of specific video or audio based on said communicated additional control signal.

161 – 164. (Cancelled)

165. (Currently amended) A method of communicating a first control signal to at least one of a plurality of receiver stations each having a plurality of programmable processors each for at least one of generating and controlling the passing of some information associated with at least one of a video display and an audio output, with at least some of said programmable processors capable of responding to said first control signal, comprising the steps of:

~~(1)~~ receiving data to be transmitted;

~~(2)~~ receiving said first control signal which at said at least one of said plurality of receiver stations operates to ~~cause a selected~~ select at least one of said plurality of programmable ~~processor~~ processors to at least one of generate and control the passing of a first portion of at least one of a video and an audio signal;

~~(3)~~ receiving a second control signal which operates at a transmitter station to communicate at least one of said data and said first control signal to a transmitter; and

~~(4)~~ transmitting one of a broadcast and a cablecast transmission comprising said data and said first control signal, wherein said first control signal operates to communicate an interrupt signal to said selected at least one of said plurality of programmable processors and to cause said selected programmable processor to at least one of generate and control the passing of some portion of said at least one of a video and an audio signal at a specific time.

166. (Previously presented) The method of claim 165, wherein said receiver station stores at least one of said data to document communication of at least one of said first control signal and said at least one of said video and said audio signal.

167. (Cancelled) ~~The method of claim 165, wherein said first control signal operates at said at least one of said plurality of receiver stations to communicate an interrupt signal to said selected programmable processor~~.

168. (Currently Amended) The method of claim ~~167~~ 165, further comprising the step of transmitting at least one of (i) said first portion of said video and said audio signal and (ii) a second portion of said video and said audio signal.

169. (Previously presented) The method of claim 168, wherein said first portion of said video and said audio signal includes a receiver specific datum and said first control signal causes said selected programmable processor to generate at least one of (i) said receiver specific datum by processing said data and (ii) information to serve as a basis for selecting said receiver specific datum from said data.

170. (Previously presented) The method of claim 169, wherein said first control signal causes said at least one of said plurality of receiver stations to output said first portion of said video and said audio signal and said second portion of said video and said audio signal simultaneously.

171 – 175. (Cancelled)

176. (Currently amended) A method of communicating a control signal to at least one of a plurality of receiver stations each having a plurality of programmable processors each for at least one of video display and an audio output, with at least some of said programmable processors capable of responding to said control signal, comprising the steps of:

~~(1)~~ receiving a signal to be transmitted, said signal comprising data to be transmitted, and delivering said signal to a transmitter;

~~(2)~~ receiving and storing said control signal which at at least one of said plurality of receiver stations operates to communicate an interrupt signal to a selected programmable processor which causes said selected programmable processor to cease performing a processing task and to cause ~~a~~ said selected programmable processor to at least one of generate and control the passing of some portion of at least one of a video and an audio signal at a first specific time; ~~and~~

~~(3)~~ ~~causing~~ receiving an instruct signal that causes said control signal to be communicated to the transmitter at a second specific time, and

transmitting one of a broadcast and cablecast transmission comprising said signal and said control signal.

177. (Currently amended) The method of claim 176, wherein said first specific time and said second specific time are separated by a period of time during which said selected programmable processor completes a processing task.

178. (Cancelled) ~~The method of claim 176, wherein said control signal operates at said at least one of said plurality of receiver stations to communicate an interrupt signal to said selected programmable processor and cause said selected programmable processor to cease performing a processing task in response to said interrupt signal.~~

179. (Previously presented) The method of claim 176, wherein said control signal causes said at least one of said plurality of receiver stations to output said first portion of said video and said audio signal and a second portion of said video and said audio signal at said first specific time, said method further comprising the step of storing at least one component of a television signal prior to said second specific time.

180. (Currently amended) The method of claim 179, further comprising the step of storing some of said data in said at least one component of said ~~television~~ signal.

181. (Previously presented) The method of claim 180, wherein said at least one of said plurality of receiver stations outputs said first portion of said video and said audio signal and a second portion of said video and said audio signal in a television signal, said method further comprising the step of transmitting said data in a plurality of components of said television signal.

182. (Previously presented) The method of claim 181, wherein said at least one of said plurality of receiver stations displays said some of said data at a video monitor as a part of television programming.

183. (Previously presented) The method of claim 181, wherein said at least one of said plurality of receiver stations emits said some of said data in audio as a part of television programming.

184 – 223. (Cancelled)

224. (Currently Amended) A method of controlling at least one of a plurality of receiver stations each of which includes a processor capable of processing data in response to one or more types of control signals, comprising the steps of:

~~(1)~~ receiving, at a transmitter station, a broadcast or cablecast transmission <u>including a first control signal and a first video image</u> to be transmitted and delivering said broadcast or cablecast transmission to a transmitter;

~~(2)~~ receiving and storing a first signal distinguishing control instruction which at said at least one receiver station operates to enable said receiver station to process ~~a~~ said first control signal as being of a specific signal type; and

~~(3)~~ ~~causing~~ receiving a second control signal that causes said first signal distinguishing control instruction to be communicated to the transmitter at a specific time, thereby to transmit said broadcast or cablecast transmission including said first video image, said first control signal and said first signal distinguishing control instruction, said first control signal operative at said at least one of said plurality of receiver stations to (1) generate a second video image by processing subscriber input and (2) output, at a video monitor, a presentation of said first video image and said second video image.

225. (Currently amended) The method of claim 224~~, wherein said broadcast or cablecast transmission includes said first control signal and said transmitter station transmits said first signal distinguishing control instruction in response to a second control signal, said method~~ further comprising the steps of:

inputting one of said broadcast or cablecast transmission and said first signal distinguishing control instruction to a control signal detector; and

detecting said second control signal at said transmitter station before said specific time.

226. (Cancelled)

227. (Cancelled) ~~The method of claim 226 wherein said broadcast or cablecast transmission includes a first video image, and said processor instructions operate (1) to generate a second video image by processing subscriber input and (2) to output, at a~~

~~video monitor, a combined or sequential presentation of said first video image and said second video image~~.

228. (Previously presented) The method of claim 224, wherein said receiver station receives said first control signal in a message stream and said first signal distinguishing control instruction operates at said receiver station to perform at least one of (1) receiving a specific portion of a television or video signal, (2) receiving a specific portion of a multichannel signal including a television or video signal, (3) discarding some of said message stream while waiting to receive a control signal which synchronizes said station in processing and responding to message information included in a television or video signal, said method further comprising the step of transmitting said television or video signal.

229. (Previously presented) The method of claim 224, wherein said first signal distinguishing control instruction operates to synchronize said receiver station in processing and responding to message information included in said broadcast or cablecast transmission, said method further comprising the step of embedding at least some of said message information in said broadcast or cablecast transmission.

230. (Previously presented) The method of claim 229, wherein said first signal distinguishing control instruction comprises an end of file signal or operates at said receiver station to communicate a processor interrupt.

231. (Previously presented) The method of claim 229, wherein said message information comprises an analysis instruction, said method further comprising the steps of:

composing a message stream including an instruction which operates at said receiver station to identify signal composition or structure; and

transmitting said message stream.

232 – 235. (Cancelled)

236. (Previously presented) The method of claim 224, wherein said transmitter station stores said broadcast or cablecast transmission for a period of time before delivering said broadcast or cablecast transmission to said transmitter, said method further comprising the steps of:

inputting said broadcast or cablecast transmission to a control signal detector; and

detecting the presence of a storage or output control signal at said transmitter station.

237. (Previously presented) The method of claim 224, wherein a controller controls at least one of (1) a switch and (2) a signal generator to communicate said first signal distinguishing control instruction and said broadcast or cablecast transmission from different sources to said transmitter, said method further comprising the steps of:

inputting said broadcast or cablecast transmission to a control signal detector; and

detecting the presence of a second control signal which operates at said transmitter station to control said at least one of (1) a switch and (2) a signal generator.

238. (Previously presented) The method of claim 237, wherein said at least one of a switch and a signal generator is a signal generator and said second control signal

controls said signal generator to embed said first signal distinguishing control instruction in said broadcast or cablecast transmission.

239 – 240. (Cancelled)

241. (Previously presented) The method of claim 224, further comprising the steps of:

generating a first message including first cadence information, an execution segment, and an information segment, said information segment including a first part of a program;

generating one or more second messages, each of said second messages including second cadence information and some other part of said program;

embedding said first message into one or more information transmissions;

subsequently embedding said one or more second messages into said one or more information transmissions to thereby compose a message stream; and

transmitting said message stream.

242. (Previously presented) The method of claim 241, wherein said program is a television program.

243. (Previously presented) The method of claim 241, wherein said program is a computer program.

244 (Currently amended) The method of claim 224, wherein said receiver station has a memory operatively connected to said processor, said method further comprising the steps of:

generating a first message including multiple elements of at least fixed length, said first message including an information segment including at least some of a program and a execution instruction ~~with~~ which operates at said receiver station to store said at least some of a program;

generating a second message including multiple elements of at least fixed length, said multiple elements comprising an execution instruction which operates at said receiver station to output content of said memory;

firstly embedding said first message into an information transmission;

subsequently embedding said second message into said information transmission; and

transmitting said information transmission.

245. (Cancelled)

246. (Previously presented) The method of claim 224, wherein said plurality of receiver stations include a plurality of processors and said first signal distinguishing control instruction designates one of a digital signal and an analog signal, said method comprising the steps of:

selecting code to be directed to said plurality of processors;

generating one or more first elements or fields to identify the structure of a message;

generating one or more second elements or fields to identify one or more processor instructions or data formats in said message;

organizing said selected code in a sequence with a plurality of message components, said sequence including said generated first and second elements or fields, said selected code organized in said sequence with said plurality of message components and said generated first and second elements or fields comprising said message; and

embedding said organized sequence into an information transmission, said information transmission including one or more of (1) a message stream, (2) video, and (3) audio; and

transmitting said information transmission.

247. (Previously presented) The method of claim 246, further comprising the steps of:

transmitting an analog television signal; and

transmitting a digital television signal.

248. (Previously presented) The method of claim 224, wherein said first signal distinguishing control instruction designates a command, said method further comprising the steps of:

generating an execution instruction specifying a control function to be executed;

organizing said first signal distinguishing control instruction and said execution instruction in a sequence; and

transmitting said first signal distinguishing control instruction and execution instruction in said sequence.

249. (Previously presented) The method of claim 248, further comprising the steps of:

generating a third instruction specifying a data structure, length, or format; and

transmitting data in said command.

250. (Previously presented) The method of claim 248, wherein said command is a specified condition command, said method further comprising the step of generating data specifying a condition.

251. (Previously presented) The method of claim 224, wherein said processor at said receiver station is capable of receiving a control signal from a plurality of inputs, said plurality of inputs including a control signal detector operatively connected to a broadcast or cablecast signal receiver, said method further comprising the step of transmitting a second control signal which operates at said receiver station to cause said processor to wait to receive said first control signal from said control signal detector.

252. (Previously presented) The method of claim 224, further comprising the steps of: receiving, at said transmitter station, a second control signal which operates at said receiver station to retransmit one or more of (1) said signal distinguishing control instruction, and (2) said first control signal; and

transmitting said second control signal to said receiver station.

253. (Previously presented) The method of claim 224, wherein said transmitter station is an origination station, said method further comprising the step of transmitting at least one of (1) a generation schedule and (2) an instruct signal which operates at said receiver station to generate at least one of said signal types at a specific time.

254. (Previously presented) The method of claim 253, wherein said receiver station is an intermediate transmitter station and said first control signal is effective to generate at least one of (1) video, (2) higher language code, and (3) machine executable code according to said at least one of a generation schedule and an instruct signal.

255 – 260. (Cancelled)

261. (Cancelled) ~~A method of processing signals in a television receiver, said television receiver having a plurality of processors on a single microchip, said method comprising the steps of:~~

~~receiving a television signal;~~

~~detecting digital data on said television signal;~~

~~passing at least a portion of said digital data to each of said plurality of processors;~~

~~passing a control portion of said digital data to a control processor;~~

~~processing said passed at least a portion of said digital data and outputting processed information at each of said plurality of processors; and~~

~~controlling the passing of said processed information from said microchip in response to said passed control portion.~~

262. (Cancelled) ~~A method of processing signals in a television receiver, said television receiver having a plurality of processors on a single microchip, said method comprising the steps of:~~

~~receiving a television signal;~~

~~detecting digital data on said television signal;~~

~~passing at least a portion of said digital data to each of said plurality of processors;~~

~~passing a control portion of said digital data to a control processor;~~

processing said passed at least a portion of said digital data and outputting processed information at each of said plurality of processors; and

controlling the passing of said processed information from at least one of said plurality of processors in response to said passed control portion.

263. (Cancelled) A method of processing signals in a television receiver, said television receiver having a plurality of processors on a single microchip, said method comprising the steps of:

receiving a television signal;

detecting digital data on said television signal;

passing at least a portion of said digital data to each of said plurality of processors;

passing a control portion of said digital data to a control processor;

controlling the passing of digital data to at least one of said plurality of processors in response to said passed control portion; and

processing said passed at least a portion of said digital data and outputting processed information at each of said plurality of processors.

264. (Cancelled) A method of processing signals in a receiver of a broadcast or cablecast transmission, said receiver including a video receiver and having a plurality of processors on a single microchip, said method comprising the steps of:

receiving a broadcast or cablecast signal;

detecting digital data on said received signal;

passing at least a portion of said digital data to each of said plurality of processors;

passing a control portion of said digital data to a control processor;

controlling the passing of said digital data to at least one of said plurality of processors in response to said passed control portion; and

~~processing said passed at least a portion of said digital data and outputting processed information at each of said plurality of processors.~~

265. (Cancelled) ~~A method of processing signals at a receiver station, said receiver station having a plurality of processors for processing a data message and a plurality of buffers with each of said plurality of buffers capable of passing data of said message to at least one of said plurality of processors, said method comprising the steps of:~~

~~receiving a broadcast or cablecast transmission;~~

~~demodulating said broadcast or cablecast transmission to detect an information transmission thereon, said information transmission including at least said data message;~~

~~detecting said data message on said information transmission;~~

~~passing at least a portion of said data message to each of said plurality of buffers; and~~

~~causing at least one of said plurality of buffers to receive only some of said data message, thereby to cause said plurality of processors to process said data message selectively.~~

266. (Cancelled) ~~A method of processing signals at a receiver station, said receiver station having a plurality of processors for processing a data message, said method comprising the steps of:~~

~~receiving a broadcast or cablecast transmission;~~

~~demodulating said broadcast or cablecast transmission to detect an information transmission thereon, said information transmission including at least said data message;~~

~~detecting said data message on said information transmission;~~

~~passing at least a portion of said data message to each of said plurality of processors; and~~

~~causing at least one of said plurality of processors to receive only some of said data message, thereby to cause said plurality of processors to process said data message selectively.~~

267 – 278. (Cancelled)

279. (Previously presented) A method of controlling a receiver station, said receiver station having a first processor executing processor instructions and being capable of generating or communicating signals on the basis of instructions detected in a broadcast or cablecast transmission, said method comprising the steps of:

receiving a broadcast or cablecast transmission;

demodulating said broadcast or cablecast transmission to detect an information transmission thereon, said information transmission comprising a first embedded control signal;

storing at a first memory, under control of said processor instructions, data designating a first portion of said processor instructions at which to resume processing;

detecting said embedded first control signal on said information transmission;

passing said detected first control signal to said first processor;

resuming processing at said first portion of said processor instructions based on said detected first control signal and said stored data; and

generating or communicating a signal under control of said processor instructions at a specific time.

280. (Previously presented) The method of claim 279, wherein an interrupt signal is communicated to said first processor, said method further comprising the step of:

programming said processor to store data at or select said data from said first memory in response to said interrupt signal.

281. (Previously presented) The method of claim 280, wherein said first processor is controlled by a controller, said method further comprising the step of passing at least some of said first control signal to said controller.

282. (Previously presented) The method of claim 281, further comprising the steps of:

executing a controlled function based on said first control signal; and

controlling said first processor in accordance with said at least some of said first control signal.

283. (Previously presented) The method of claim 281, further comprising the step of storing information at at least one of said first processor and said controller that evidences a passing of information in consequence of said first control signal.

284. (Previously presented) The method of claim 283, wherein said stored evidence information designates at least one of (1) a mass medium program, (2) a second portion of said processor instructions, and (3) a complete output to be delivered to an output device.

285. (Previously presented) The method of claim 283, wherein said stored evidence information designates an owner or supplier of information included in said broadcast or cablecast transmission, said method further comprising the steps of:

detecting said processor instructions on said information transmission; and passing said processor instructions to said first processor.

286. (Previously presented) The method of claim 280, wherein a second processor generates or communicates information for output in accordance with a computer program, said method further comprising the step of communicating said interrupt signal to said second processor to cause said second processor to communicate said generated information for output to an output device.

287. (Previously presented) The method of claim 286, wherein said first processor is a control processor, said method further comprising the steps of:

executing a controlled function in response to a second control signal; and

controlling a switch to communicate said computer program to said first processor.

288. (Currently amended) The method of claim 286, wherein said computer program comprises at least one of an intermediate generation set and a program instruction set, said method further comprising the step of controlling a switch to communicate said at least one of an intermediate generation set and a program instruction set from a detector to said second processor.

289. (Previously presented) The method of claim 286, wherein said first processor is capable of controlling a matrix switch to communicate information from a plurality of input sources to a plurality of devices, said method further comprising the steps of:

storing at a second memory data designating a second portion of processor instructions at which to resume processing; and responding to a second interrupt signal.

290. (Previously presented) The method of claim 289, wherein said matrix switch is a digital switch and said plurality of devices include a decryptor, said method further comprising the steps of:

controlling said digital switch to communicate at least some of said first control signal to said decryptor;

controlling said decryptor to decrypt said at least some of said first control signal; and

processing at least one of (i) an unencrypted portion of said first control signal and (ii) a decrypted portion of said first control signal.

291. (Previously presented) The method of claim 279, further comprising the step of selecting said data from said first memory in response to said first control signal.

292. (Currently amended) The method of claim 279, wherein a second portion of said processor instructions cause a digital switch to communicate a signal including a computer program to a second processor, said method further comprising the steps of:

controlling said digital switch to communicate at least some of said information transmission to said decryptor;

controlling said decryptor to decrypt said at least some of said information transmission; and

responding to a first interrupt signal communicated from said second processor in accordance with said computer program.

293. (Previously presented) The method of claim 292, further comprising the steps of:

communicating said first control signal to said second processor in consequence of said first interrupt signal.

294. (Previously presented) The method of claim 279, wherein at least one of an intermediate generation set and a program instruction set is detected in said information

transmission and said first processor controls a second processor to output from a second memory a signal including one or more receiver specific data generated under control of said at least one of an intermediate generation set and a program instruction set, said method further comprising the steps of:

determining that said second processor has failed to complete storing data at said second memory based on information stored at said first memory; and

clearing said second memory in consequence of said step of determining that said processor has failed to complete storing data at said second memory.

295. (Previously presented) The method of claim 294, further comprising the step of (l causing said second processor to jump to one or more instructions in said at least one of an intermediate generation set and a program instruction set based on said step of determining.

296. (Previously presented) The method of claim 295, further comprising the step of computing target data to designating said one or more instructions.

297. (Previously presented) The method of claim 296, wherein said computers said target data by processing one or more of (1) a label, (2) a history of efficiency, and (3) an offset address, said method further comprising the step of storing said one or more of (1) a label, (2) a history of efficiency, and (3) an offset address.

298. (Previously presented) The method of claim 279, wherein said receiver station is programmed to store information at said first memory information which signifies the completion of an event, said method further comprising the steps of:

detecting a second control signal in said information transmission; and loading said processor instructions at a second memory operatively connected to said first processor in response to said second control signal.

299. (Previously presented) The method of claim 298, wherein said processor instructions are detected in said information transmission, said method further comprising the steps of:

determining a failure to complete an event based on information stored at said first memory; and

computing target data designating a second portion of said processor instructions based on said step of determining a failure.

300 – 324. (Cancelled)

325. (Currently amended) A method of communicating one or more control signals to one or more receiver stations each of which includes a processor for storing and processing digital data included in at least one broadcast or cablecast transmission, comprising the steps of:

receiving a first broadcast or cablecast transmission to be transmitted, said broadcast or cablecast transmission including said digital data;

receiving a first control signal which at said one or more receiver stations operates to designate a second broadcast or cablecast transmission and enables said one or more receiver station to execute one or more controlled functions in response to information included in said second broadcast or cablecast transmission, said first control signal including series of instructions, a first one or more of said series of instructions controlling one or more of a converter, a mass medium programming receiver, and a portion receiver to receive said information included in said second broadcast or

cablecast transmission and a second of said series of instructions operates at said one or more receiver stations to synchronize processing of said information included in said second broadcast or cablecast transmission;

receiving a second control signal which operates at a transmitter station to communicate said first control signal to a first transmitter; and

transmitting said first broadcast or cablecast transmission, said digital data, and said first control signal, wherein said first control signal is operative at said one or more receiver stations to cause said processor to cease storing said digital data.

326. (Previously presented) The method of claim 325, wherein said first control signal operates at said one or more receiver stations to designate a memory, said method further comprising the steps of:

transmitting a third control signal, said third control signal operating at said memory;

storing or outputting, at said memory, programming included in said second broadcast or cablecast transmission in response to said third control signal.

327. (Cancelled) ~~The method of claim 325, wherein said first control signal enables said one or more receiver stations to execute one or more controlled functions in response to information included in said second broadcast or cablecast transmission, said method further comprising the step of transmitting a series of instructions in said first control signal~~.

328. (Cancelled) ~~The method of claim 327, wherein a first one or more of said series of instructions controls one or more of a converter, a mass medium programming receiver, and a portion receiver to receive said information included in said second broadcast or cablecast transmission.~~

329. (Cancelled) ~~The method of claim 328, wherein a second of said series of instructions operates at said one or more receiver stations to synchronize processing of said information included in said second broadcast or cablecast transmission~~.

330. (Currently amended) The method of claim ~~327~~ 325, further comprising the step of transmitting operating instructions which program said one or more of said plurality of receiver stations to execute said controlled functions in response to said information included in said second broadcast or cablecast transmission.

331. (Currently amended) The method of claim 330, wherein a selective communications device is operatively connected to a receiver at said transmitter station and said operating instructions program said one or more receiver stations to execute said controlled functions in response to one or more receiver station execution instructions included in said second broadcast or cablecast transmission, said method further comprising the step of ~~outputting~~ causing said selective communications device to communicate output to said transmitter in response to said second control signal.

332. (Previously presented) The method of claim 331, wherein said selective communications device comprises a memory which stores said one or more execution instructions in at least some of a message stream and said operating instructions program said at least one of said plurality of receiver stations to process at least one message, said method further comprising the steps of:

detecting one or more transmitter station execution instructions in said message stream; and

programming at least one processor at said transmitter station to respond to said one or more transmitter station execution instructions.

333. (Previously presented) The method of claim 332, wherein said operating instructions program said one or more receiver stations to detect at least a first synchronizing control signal, said method further comprising the steps of:

programming at least one processor at said transmitter station to detect said at least a first synchronizing instruction; and

generating one or more second synchronizing control signals which are effective to synchronize said one or more receiver stations.

334. (Previously presented) The method of claim 333, wherein one or more of said first and second synchronizing control signals is an end of file signal.

335. (Previously presented) The method of claim 325, further comprising the step of transmitting said first broadcast or cablecast transmission based on said second control signal.

336. (Previously presented) The method of claim 335, wherein said second control signal is a schedule, said method further comprising the step of generating said first control signal in accordance with said schedule.

337. (Previously presented) The method of claim 335, wherein one or more transmitter stations include a memory operatively connected to said first transmitter, said method further comprising the step of outputting said memory in response to said second control signal.

338. (Previously presented) The method of claim 337, wherein said first control signal is embedded in one of said first broadcast or cablecast transmission and said

second broadcast or cablecast transmission, said method further comprising the step of storing at least some of said one of said first broadcast or cablecast transmission and said second broadcast or cablecast transmission at said memory.

339. (Previously presented) The method of claim 325, wherein at least one transmitter station includes a second transmitter, said method further comprising the step of communicating one of said first broadcast or cablecast transmission and said second broadcast or cablecast transmission to said second transmitter in accordance with said second control signal.

340. (Previously presented) The method of claim 339, wherein said at least one transmitter station transmits a plurality of channels of programming, said method further comprising the step of multiplexing signals including said first and second broadcast or cablecast transmissions.

341. (Previously presented) The method of claim 339, wherein said at least one transmitter station comprises an intermediate transmission station, said method further comprising the step of embedding said first control signal in said second broadcast or cablecast transmission.

342. (Currently amended) A method of communicating one or more control signals to one or more receiver stations each of which includes a processor for storing and processing digital data included in at least one broadcast or cablecast transmission, comprising the steps of:

receiving a first broadcast or cablecast transmission to be transmitted and delivering said first broadcast or cablecast transmission to one or more transmitters, said first broadcast or cablecast transmission including said digital data;

receiving and storing a first control signal which at said one or more receiver stations operates to designate a second broadcast or cablecast transmission and to control said one or more receiver stations to detect information included in said second broadcast or cablecast transmission, wherein a synchronizing control signal is embedded in said second broadcast or cablecast transmission, said synchronizing control signal for enabling said processor to output at least some of said detected information and to enable said one or more receiver stations to execute one or more controlled functions in response to at least a portion of said information included in said second broadcast or cablecast transmission; ~~and~~

communicating to a first of said one or more transmitters said synchronizing control signal;

causing said first control signal to be communicated to ~~a~~ said first of said one or more transmitters at a specific ~~time,~~ time;

communicating said second broadcast or cablecast transmission to said first of said one more transmitters, thereby to transmit said first broadcast or cablecast transmission, said second broadcast or cablecast transmission, said digital data, and said first control signal, wherein said at least a portion of said information including in said second broadcast or cablecast transmission is transmitted after said specific time and said first control signal is operative at said one or more receiver stations to cause said processor to cease storing said digital data.

343. (Previously presented) The method of claim 342, wherein said first control signal is received at a memory, said method further comprising the steps of:

generating said first control signal before said specific time; and communicating said first control signal to said memory.

344. (Previously presented) The method of claim 343, further comprising the steps of: receiving a schedule at a controller; and

communicating at least one of said first control signal and a second control signal in accordance with said schedule.

345. (Previously presented) The method of claim 342, further comprising the steps of:

receiving an intermediate generation set; and

generating said first control signal in accordance with said intermediate generation set.

346. (Previously presented) The method of claim 345, further comprising the steps of:

storing, before said specific time, formula or item information to serve as a basis for generating said first control signal; and

using said formula or item information to serve as a basis for generating said first control signal.

347. (Cancelled) ~~The method of claim 342, wherein said first control signal operates to control said one or more receiver stations to detect information included in said second broadcast or cablecast transmission, said method further comprising the step of communicating to said first transmitter a synchronizing control signal for enabling said processor to output at least some of said detected information.~~

348. (Cancelled) ~~The method of claim 347, wherein said synchronizing control signal is embedded in said second broadcast or cablecast transmission, said method further~~

~~comprising the step of communicating said second broadcast or cablecast transmission to said first transmitter.~~

349. (Cancelled) ~~The method of claim 348, wherein said synchronizing control signal enables said one or more receiver stations to execute one or more controlled functions in response to at least a portion of said information included in said second broadcast or cablecast transmission, said method further comprising the step of transmitting said at least a portion of said information after said specific time.~~

350. (Currently Amended) The method of claim ~~347~~ 342, further comprising the step of transmitting said synchronizing control signal following said specific time.

351. (Previously presented) The method of claim 342, further comprising the step of communicating said first broadcast or cablecast transmission to a second of said one or more transmitters prior to said specific time.

352. (Previously presented) The method of claim 342, further comprising the step of multiplexing a signal including said first and second broadcast or cablecast transmissions.

353 – 357. (Cancelled)

358. (Previously presented) A method of processing a microprocessor interrupt signal at a receiver station, said receiver station having a television receiver, a television monitor, a memory for storing a microprocessor interrupt signal, and a microprocessor for performing at least one of the functions of generating information for display on said

television monitor and controlling the passage of information for display on said television monitor, said method comprising the steps of:

receiving one of a broadcast and a cablecast transmission;

demodulating said one of said broadcast and said cablecast transmission to detect an information transmission thereon, said information transmission comprising a microprocessor interrupt signal standard and embedded data, said embedded data including a microprocessor interrupt signal;

storing said microprocessor interrupt signal standard;

detecting said embedded data on said information transmission;

passing said detected embedded data to a memory location;

comparing said detected embedded data at said memory location with said microprocessor interrupt signal standard;

detecting the presence of said microprocessor interrupt signal in said detected embedded data based on said step of comparing; and interrupting said microprocessor.

359. (Previously presented) The method of claim 358, further comprising the steps of:

storing said detected embedded data at said memory location; and

programming said receiver station to compare information stored at said memory location to said microprocessor interrupt signal standard.

360. (Previously presented) The method of claim 358, further comprising the step of:

storing a second microprocessor interrupt signal standard.

361. (Currently amended) A method of communicating a microprocessor interrupt signal to at least one of a plurality of receiver ~~stations~~ stations, each one of said plurality of receiver stations having a television receiver, a television monitor, and a microprocessor for performing at least one of the functions of generating information for display on said television monitor and controlling a passing of information for display on said television monitor, said method comprising the steps of:

receiving an information transmission to be transmitted in one of a broadcast and a cablecast transmission;

receiving said microprocessor interrupt signal which operates at said at least one of said plurality of receiver stations to enable said at least one of said plurality of receiver stations to compare said microprocessor interrupt signal to a microprocessor interrupt signal standard and communicate to the microprocessor at said at least one of said plurality of receiver stations information of a microprocessor interrupt signal match;

receiving a control signal which operates at a transmitter station to communicate said microprocessor interrupt signal to a transmitter; and

transmitting said one of said broadcast and said cablecast transmission comprising said microprocessor interrupt signal to effect said at least one of said plurality of receiver stations to compare said microprocessor interrupt signal to said microprocessor interrupt signal standard and communicate said information of said microprocessor interrupt signal match.

362. (Previously presented) The method of claim 361, wherein communicating said information of said microprocessor interrupt signal match at said at least one of said plurality of receiver stations comprises interrupting said microprocessor at said at least one of said plurality of receiver stations.

363. (Previously presented) The method of claim 361, wherein said step of transmitting enables each of said plurality of receiver stations to interrupt a microprocessor.

364. (Previously presented) The method of claim 361, wherein said information of said L~ microprocessor interrupt signal match causes said at least one of said plurality of receiver stations to output television programming, said method further comprising the step of transmitting a portion of said television programming.

365. (Previously presented) The method of claim 361, further comprising the step of transmitting said microprocessor interrupt signal standard.

366. (Previously presented) The method of claim 361, wherein said information of said microprocessor interrupt signal match causes said at least one of said plurality of receiver stations to execute a microprocessor instruction, said method further comprising the step of transmitting said microprocessor instruction.

367. (Previously presented) A method of communicating a microprocessor interrupt signal to at least one of a plurality of receiver stations, each one of said plurality of receiver stations having a television receiver, a television monitor, and a microprocessor for performing at least one of the functions of generating information for display on said television monitor and controlling a passing of information for display on said television monitor, said method comprising the steps of:

receiving an information transmission to be transmitted in one of a broadcast and a cablecast transmission, and delivering said information transmission to a transmitter;

receiving and storing said microprocessor interrupt signal which operates at said at least one of said plurality of receiver stations to enable said at least one of said plurality

of receiver stations to compare said microprocessor interrupt signal to a microprocessor interrupt signal standard and communicate to the microprocessor at said at least one of said plurality of receiver stations information of a microprocessor interrupt signal match; and

communicating said microprocessor interrupt signal to said transmitter at a specific time, thereby to transmit one of said broadcast and said cablecast transmission comprising said microprocessor interrupt signal to effect said at least one of said plurality of receiver stations to compare said microprocessor interrupt signal to said microprocessor interrupt signal standard and communicate said information of said microprocessor interrupt signal match.

368. (Previously presented) The method of claim 367, wherein communicating said information of said microprocessor interrupt signal match at said at least one of said plurality of receiver stations comprises interrupting said microprocessor at said at least one of said plurality of receiver stations.

369. (Previously presented) The method of claim 367, wherein said step of transmitting enables each of said plurality of receiver stations to interrupt a microprocessor.

370. (Previously presented) The method of claim 367, wherein said information of said microprocessor interrupt signal match causes said at least one of said plurality of receiver stations to output television programming, said method further comprising the step of transmitting a portion of said television programming.

371. (Previously presented) The method of claim 367, further comprising the step of transmitting said microprocessor interrupt signal standard.

372. (Previously presented) The method of claim 367, wherein said information of said microprocessor interrupt signal match causes said at least one of said plurality of receiver stations to execute a microprocessor instruction, said method further comprising the step of transmitting said microprocessor instruction.

373. (Previously presented) A method of processing a microprocessor interrupt signal at a receiver station, said receiver station having a television receiver, a television monitor, and a microprocessor for performing at least one of the functions of generating information for display on said television monitor and controlling the passage of information for display at said television monitor, said method comprising the steps of:

storing a microprocessor interrupt signal standard;

receiving one of a broadcast and a cablecast transmission;

demodulating said one of said broadcast and said cablecast transmission to detect an information transmission thereon, said information transmission comprising embedded data, said embedded data including a microprocessor interrupt signal;

detecting said embedded data on said information transmission;

passing said detected embedded data to a memory location;

comparing said detected embedded data at said memory location with said microprocessor interrupt signal standard;

detecting the presence of said microprocessor interrupt signal in said detected embedded data based on said step of comparing;

interrupting said microprocessor; and,

performing at least one of the functions of (i) generating television programming content based on said step of interrupting and (ii) outputting television programming

content from a memory to said television monitor at a specific time based on said step of interrupting.

374. (Previously presented) The method of claim 373, wherein said memory stores television programming content generated in accordance with microprocessor instructions, said method further comprising the steps of:

passing said microprocessor instructions to said microprocessor.

375. (Previously presented) The method of claim 374, wherein said receiver station detects a plurality of microprocessor interrupt signals, said method further comprising the steps of:

generating specific television programming content in response to a first of said plurality of microprocessor interrupt signals; and

outputting said specific television programming content in response to a second of said plurality of microprocessor interrupt signals.

376. (Currently amended) The method of claim 374, wherein said receiver station detects a plurality of microprocessor interrupt signals, said method further comprising the steps of: and

causing said memory to store specific television programming content in response to a first of said plurality of microprocessor interrupt signals; and

causing said memory to output said specific television programming content to said television monitor in response to a second of said plurality of microprocessor interrupt ~~signal~~ signals.

377. (Previously presented) A method of processing a microprocessor interrupt signal at a receiver station, said receiver station having a television receiver, a television monitor, and a microprocessor for performing at least one of the functions of generating information for display on said television monitor and controlling the passage of information for display on said television monitor, said method comprising the steps of:

storing a microprocessor interrupt signal standard;

storing an identifier for comparison, said identifier designating a function to be performed in response to said microprocessor interrupt signal;

receiving one of a broadcast and a cablecast transmission;

demodulating one of said broadcast and said cablecast transmission to detect an information transmission thereon, said information transmission comprising embedded data, said embedded data including said microprocessor interrupt signal;

detecting said embedded data on said information transmission;

passing said detected embedded data to a memory location;

selecting at least one of a plurality of functions based on a comparison of said identifier and at least a portion of said detected embedded data;

comparing said detected embedded data at said memory location with said microprocessor interrupt signal standard;

detecting the presence of said microprocessor interrupt signal in said detected embedded data based on said step of comparing;

interrupting said microprocessor to execute said selected at least one of said plurality of functions at a specific time.

378. (Previously presented) A method of processing signals at a receiver station, said receiver station having a processor for processing digital data detected in one or

more carrier transmissions and outputting instructions and other information, said method comprising the steps of:

commencing to receive said one or more carrier transmissions;

demodulating said one or more carrier transmissions to detect at least one information transmission thereon, said at least one information transmission including digital data embedded in said at least one information transmission;

detecting said embedded data in said at least one information transmission;

processing said detected embedded data to detect a distinctive first synchronizing control signal within said detected embedded data;

discarding at least some of said detected data received and

stored before said distinctive first synchronizing control signal is detected; and

detecting said distinctive first synchronizing control signal, said distinctive first synchronizing control signal enabling said receiver station to commence executing controlled functions in response to embedded data received in said one or more carrier transmissions after the detection of said distinctive first synchronizing control signal.

379. (Previously presented) The method of claim 378, wherein said step of discarding at least some of said detected data includes instructing a processor to delete data detected in a first carrier transmission.

380. (Cancelled)

381. (Previously presented) The method of claim 379, wherein said step of instructing a processor includes communicating a processor interrupt.

382. (Previously presented) The method of claim 378, wherein said step of commencing to receive one or more carrier transmissions comprises controlling a selective communications device to communicate to a receiver at least one of said one or more carrier transmissions.

383. (Previously presented) The method of claim 382, wherein said selective communications device is a converter.

384. (Previously presented) The method of claim 382, wherein said selective communications device is a storage device.

385. (Previously presented) The method of claim 378, further comprising the steps of:

detecting a second synchronizing control signal based on said distinctive first synchronizing control signal; and

analyzing, based on said second synchronizing control signal, a data structure of said embedded data received in said one or more carrier transmissions after the detection of said distinctive first synchronizing signal.

386. (Previously presented) The method of claim 385, further comprising the step of interrupting said processor in response to at least a portion of said distinctive first synchronizing control signal.

387. (Previously presented) The method of claim 386, wherein said distinctive first synchronizing control signal includes an end of file signal.

388. (Previously presented) The method of claim 378, further comprising the steps of:

detecting a second synchronizing control signal based on said distinctive first synchronizing control signal; and

executing, based on said second synchronizing control signal, one or more of said controlled functions.

389. (Previously presented) A method of communicating digital data to a plurality of receiver stations each of which includes a receiver and a processor for processing said digital data detected in a broadcast or cablecast transmission and outputting portions of messages including instructions and other information, comprising the steps of:

receiving said digital data to be transmitted;

receiving at least a first synchronizing control signal which at at least one of said plurality of receiver stations operates to enable said at least one of said plurality of receiver stations to commence executing controlled functions;

receiving a second control signal which operates at a transmitter station to communicate at least one of said digital data and said at least a first synchronizing control signal to a transmitter; and

transmitting said broadcast or cablecast transmission comprising said digital data and said at least a first synchronizing control signal to effect said at least one of said plurality of receiver stations to process said digital data to detect said at least a first synchronizing control signal, wherein at least some of said digital data is discarded by said at least one of said plurality of receiver stations until said at least a first synchronizing control signal is detected.

390. (Previously presented) The method of claim 389, wherein said at least a first synchronizing control signal is received from a remote origination station, said method further comprising the step of controlling a selective communications device to communicate said at least a first synchronizing control signal in accordance with said second control signal.

391. (Previously presented) The method of claim 390, wherein said selective communications device includes at least one of a memory and a switch, said method further comprising the step of controlling said at least one of a memory and a switch to communicate mass medium programming based on said second control signal.

392. (Previously presented) The method of claim 391, wherein said memory stores a signal including said mass medium programming and said at least a first synchronizing control signal, said method further comprising the step of controlling communication of said mass medium programming from a receiver to said memory based on said second control signal.

393. (Previously presented) The method of claim 389, wherein said second control signal includes a schedule and said at least a first synchronizing control signal is included in a series of instruct signals, said method further comprising the step of controlling a first selective communications device to communicate said series of instruct signal in accordance with said schedule.

394. (Previously presented) The method of claim 393, wherein said series of instruct signals comprises one or more receiver station instruct signals and one or more transmitter station instruct signals, said method further comprising the steps of:

transmitting said one or more receiver station instruct signals; and controlling one or more second selective communications devices in response to said one or more transmitter station instruct signals.

395. (Previously presented) The method of claim 394, wherein said one or more second selective communications devices include a processor, said method further comprising the steps of:

storing generally applicable information in respect of at least one of a receiver station video, audio, and graphic presentation; and

generating at least one of video, audio, and computer programming to be transmitted by processing said generally applicable information.

396. (Previously presented) The method of claim 393, further comprising the steps of:

storing one or more of formula and item information; generating transmitter specific data by processing said stored one or more of formula and item information; and transmitting said transmitter specific data based on said schedule.

397. (Previously presented) The method of claim 389, further comprising the step of transmitting operating instructions which program said at least one of said plurality of receiver stations to execute said controlled functions in response to said digital data.

398. (Previously presented) The method of claim 397, wherein a selective communications device is operatively connected to a receiver and said operating instructions program said at least one of said plurality of receiver stations to execute said controlled functions in response to one or more receiver station execution

instructions included in said digital data, said method further comprising the step of outputting said selective communications device to said transmitter in response to said second control signal.

399. (Previously presented) The method of claim 398, wherein said selective communications device comprises a memory which stores said digital data in a message stream and said operating instructions program said at least one of said plurality of receiver stations to process at least one message, said method further comprising the steps of:

detecting one or more transmitter station execution instructions in said message stream; and

programming at least one processor to respond to said one or more transmitter station execution instructions.

400. (Previously presented) The method of claim 397, wherein said operating system instructions program said at least one of said plurality of receiver stations to detect said at least a first synchronizing control signal, said method further comprising the steps of:

programming at least one processor to detect said at least a first synchronizing instruction; and

generating one or more second synchronizing control signals which are effective to synchronize said plurality of receiver stations.

401. (Previously presented) The method of claim 400, wherein one or more of said first and second synchronizing control signals is an end of file signal.

402. (Previously presented) The method of claim 389, wherein said at least a first synchronizing control signal includes a header signal.

403. (Previously presented) The method of claim 389, wherein at least one synchronizing control signal includes an end of file signal.

404. (Currently amended) A method of communicating digital data to a plurality of receiver ~~station~~ stations, each of which includes a receiver and a processor for processing said digital data detected in a broadcast or cablecast transmission and outputting portions of messages including instructions and other information, ~~comprises~~ comprising the steps of:

receiving said digital data to be transmitted and delivering said digital data to a ~~transmitter~~ transmitter, said transmitter broadcasting or cablecasting said transmission;

receiving and storing at least a first synchronizing control signal which at at least one of said plurality of receiver stations operates to enable said at least one of said plurality of ~~receivers~~ receiver stations to commence executing controlled functions; and

causing said at least a first synchronization control signal to be communicated to the transmitter at a specific time, thereby to transmit said broadcast or cablecast transmission comprising said digital data and said at least a first synchronizing control signal to effect at least one of said plurality of receiver stations to process said digital data to detect said at least a first synchronizing signal, wherein at least some of said digital data is discarded by said at least one of said plurality of receiver stations until said at least a first synchronization signal is detected.

405 – 410. (Cancelled)

411. (Previously presented) The method of claim 404, further comprising the step of transmitting, prior to said specific time, a receiver control signal which operates at said at least one of said plurality of receiver stations to receive a master channel of a multichannel broadcast or cablecast transmission.

412. (Cancelled)

413. (Previously presented) The method of claim 404, further comprising the step of transmitting operating instructions which program said at least one of said plurality of receiver stations to execute said controlled functions in response to said digital data.

414. (Previously presented) The method of claim 413, wherein a selective communications device is operatively connected to a receiver and said operating instructions program said at least one of said plurality of receiver stations to execute said controlled functions in response to one or more receiver station execution instructions included in said digital data, said method further comprising the step of controlling said selective communications device to deliver said digital data to said transmitter.

415. (Previously presented) The method of claim 414, wherein said selective communications device comprises at least one processor which receives said digital data in a message stream and said operating instructions program said at least one of said plurality of receiver stations to process at least one message, said method further comprising the steps of: programming said at least one processor to respond to one or more transmitter station execution instructions; and communicating said digital data to said transmitter in said at least one message.

416. (Previously presented) The method of claim 415, wherein said operating system instructions program said at least one of said plurality of receiver stations to detect said at least a first synchronizing control signal, said method further comprising the steps of:

synchronizing said at least one processor to process said one or more transmitter station execution instructions in response to said at least a first synchronizing control signal; and generating one or more second synchronizing control signals which are effective to synchronize said plurality of receiver stations.

417. (Previously presented) The method of claim 416, wherein one or more of said first and second synchronization control signals includes an end of file signal.

418. (Previously presented) The method of claim 404, wherein said at least a first synchronizing control signal includes a header signal.

419. (Previously presented) The method of claim 404, wherein at least one synchronizing control signal includes an end of file signal.

420 – 423. (Cancelled)

In the Abstract:

Please delete the last sentence of the abstract such that the abstract is less than 25 lines total.

Allowable Subject Matter

3. Claims **2, 4, 5, 7, 8, 78-87, 89-107, 110, 111, 114, 115, 157-160, 165, 166, 168-170, 176, 177, 179-183, 224, 225, 228-231, 236-238, 241-244, 246-254, 279-299, 325, 326, 330-346, 350-352, 358-379, 381-404, 411, and 413-419** *(renumbered 1-173, respectively)* are allowed.

4. The following is an examiner's statement of reasons for allowance:

Regarding *amended* claim **2**, the closest prior art of record, *Yanagimachi et al. (U.S. 3,936,595) (hereinafter Yanagimachi)*, teaches a method for controlling the communication of programming signals at a receiver station, where a programming stream is received at a receiver station of Figure 14 that contains a plurality of control codes (embedded signals) as spoken of on column 16, lines 22-40.

Yanagimachi also teaches where the programming stream signal received at the input terminal 117 of the receiver 103 of Figure 14 is demodulated by a demodulator 118.

Yanagimachi also teaches where the control codes (embedded signals) are communicated from demodulator 118 to a control code decoder 119 (valve) as shown in Figure 14 and spoken of on column 16, lines 22-27.

Yanagimachi also teaches where the control code decoder 119 (valve) decodes a received control code to obtain a decoded control code (valve control signal) as spoken of on column 16, lines 25-27.

Yanagimachi also teaches the control code decoder 119 (valve) that controls the outputting of video and audio from the video frame gate 122 and the audio channel

selector 120 (processors) based upon a decoded control code as spoken of on column 16, lines 25-40.

While *Yanagimachi* teaches the use of the decoded control codes (valve control signals) to control the outputting of video and audio from the video frame gate 122 and the audio channel selector 120 (processors), and also appears to show some signaling being sent from control code decoder 119 to video frame gate 122 and audio channel selector 120 as shown by the input arrows in the receiver 103 of Figure 14, *Yanagimachi* does not teach where the valve control signals themselves are communicated from the valve to at least one processor.

Yanagimachi as well as the other prior art of record fail to teach:

"communicating said valve control signals from said valve to said at least one processor" in combination with the other limitations of *amended* claim **2**.

Similar rationale applies to *amended* claims **4 and 5**.

Regarding *amended* claim **78**, the closest prior art of record, *Haselwood et al. (U.S. 4,025,851) (hereinafter "Haselwood")* teaches a broadcast television monitoring system where a composite signal is received by a monitor receiver 24 of Figure 2 that contains a video portion as well as vertical and horizontal synchronization portions (embedded data).

Haselwood also teaches the generation of interrupt requests (interrupt signals) in response to vertical and horizontal synchronization signals (embedded data) as spoken of on column 6, lines 54-60.

Haselwood also teaches the synchronization logic circuit 78 (processor) of Figure 5 that controls the interrupt processing and outputting of video data as spoken of on column 6, line 62 – column 7, line 8.

While *Haselwood* teaches the processing of the video and vertical and horizontal synchronization portions of the received signal in a decoder 28 of Figure 2, *Haselwood* does not explicitly teach the demodulation of the received signal.

However, *Yanagimachi* teaches a programming stream reception system in Figure 14 where a demodulator 118 is utilized to demodulate a received composite signal and for forwarding for further processing in the receiver 103.

Haselwood makes use of antennas 20 and 26 for wireless communication as shown in Figures 1 and 2.

However, *Haselwood, Yanagimachi,* and the other prior art of record fail to teach:

"receiving data to be transmitted with a first control signal at said transmitter station;

receiving a second control signal at said transmitter station which operates to communicate at least one of said data and said first control signal to a transmitter;

transmitting a television signal with an information transmission comprising said data and said first control signal embedded thereon;

receiving said television signal at said receiver station;"

as well as:

"generating a processor interrupt signal in response to said data;

communicating said processor interrupt signal to said at least one processor in response to said first control signal" in combination with the other limitations of *amended* claim **78**.

Similar rationale applies to *amended* claims **79-83, 105, 114, 157, 165, 176, and 224**.

Regarding claim **279**, *Haselwood, Yanagimachi,* as well as the other prior art of record fails to teach:

"*storing at a first memory, under control of said processor instructions, data designating a first portion of said processor instructions at which to resume processing;*

detecting said embedded first control signal on said information transmission;

passing said detected first control signal to said first processor;

resuming processing at said first portion of said processor instructions based on said detected first control signal and said stored data" in combination with the other limitations of claim **279**.

Regarding *amended* claim **325**, *Haselwood, Yanagimachi,* as well as the other prior art of record fails to teach:

"receiving a first control signal which at said one or more receiver stations operates to designate a second broadcast or cablecast transmission and enables said one or more receiver station to execute one or more controlled functions in response to information included in said second broadcast or cablecast transmission, said first control signal including series of instructions, a first one or more of said series of instructions controlling one or more of a converter, a mass medium programming receiver, and a portion receiver to receive said information included in said second broadcast or cablecast transmission and a second of said series of instructions operates at said one or more receiver stations to synchronize processing of said information included in said second broadcast or cablecast transmission" in combination with the other limitations of *amended* claim **325**.

Regarding *amended* claim **342**, *Haselwood, Yanagimachi,* as well as the other prior art of record fails to teach:

"receiving and storing a first control signal which at said one or more receiver stations operates to designate a second broadcast or cablecast transmission and to control said one or more receiver stations to detect information included in said second broadcast or cablecast transmission, wherein a synchronizing control signal is embedded in said second broadcast or cablecast transmission, said synchronizing control signal for enabling said processor to output at least some of said detected information and to enable said one or more receiver stations to execute one or more controlled functions in response to at least a portion of said information included in said second broadcast or cablecast transmission;

communicating to a first of said one or more transmitters said synchronizing control signal" in combination with the other limitations of *amended* claim **342**.

Regarding claim **358**, *Haselwood, Yanagimachi,* as well as the other prior art of record fails to teach:

"demodulating said one of said broadcast and said cablecast transmission to detect an information transmission thereon, said information transmission comprising a microprocessor interrupt signal standard and embedded data, said embedded data including a microprocessor interrupt signal;

storing said microprocessor interrupt signal standard;

detecting said embedded data on said information transmission;

passing said detected embedded data to a memory location;

comparing said detected embedded data at said memory location with said microprocessor interrupt signal standard;

detecting the presence of said microprocessor interrupt signal in said detected embedded data based on said step of comparing; and interrupting said microprocessor" in combination with the other limitations of claim **358**.

Similar rationale applies to claims **361, 367, 373, and 377**.

Regarding claim **378**, *Haselwood, Yanagimachi,* as well as the other prior art of record fails to teach:

"processing said detected embedded data to detect a distinctive first synchronizing control signal within said detected embedded data;

discarding at least some of said detected data received and

stored before said distinctive first synchronizing control signal is detected; and

detecting said distinctive first synchronizing control signal, said distinctive first synchronizing control signal enabling said receiver station to commence executing controlled functions in response to embedded data received in said one or more carrier transmissions after the detection of said distinctive first synchronizing control signal" in combination with the other limitations of claim **378**.

Similar rationale applies to claims **389 and 404**.

Dependent claims are also allowable as they depend from the above allowable independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. MOORE, JR., whose telephone number is (571)272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached at (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Moore, Jr./
Primary Examiner, Art Unit 2467